

Q6 ANSWER: The reactor is a stirred tank reactor with a top deposition zone. An seed  
AB addition zone is located at the bottom of the reactor. The reactor has multiple  
spargers in the bottom zone where beads are maintained in a submerged  
fluidized bed. In the upper zone where beads are maintained in a bubbling  
fluidized bed. In the upper portion of the upper zone segregates beads by  
size. Sparging, suspending, sorting and transporting product beads are  
also done in this zone.

CAS INDEXING IN	FILE FOR THIS PATENT.
AN	1000-111
TI	Silicon
IN	Lord, Richard, Moses Lake, WA, United States
PA	Advanced Materials, Inc., Moses Lake, WA, United States (U.S. Corporation)
PI	US 581,000
AI	US 437,000
ELI	Continuation of US 437,000, filed on 7 Jan 1995
DT	Utility
FS	Granted
EXNAM	Primary Examiner, Richard
DEP	Marquardt Corporation, Elgin & Whinston, LLP
CLMN	Number of Claims
ECL	Exemplary Claim
DRWN	14 Drawings (including 7 Drawing Pages)
LI.CNT	3020
CAS INDEXING IN	FILE FOR THIS PATENT.

ANSWER: The reactor is a fluidized bed reactor. It is composed of a cylindrical vessel with a conical bottom. The reactor is divided into three zones: a lower zone where beads are maintained in a submerged state, an upper zone where beads are maintained in a bubbling fluidized state, and a top zone where beads are maintained in a dense fluidized state. The reactor is operated at a pressure of 10-20 psig and a temperature of 100-150°C. The beads are fluidized by a gas flow from the bottom. The beads are separated from the gas by a cyclone separator. The beads are then sorted and transported to a collection bin.

CAS INDEXING IN	1	NO THIS PATENT.
AN	1	1
CI	1	1
DI	1	1
FI	1	1
GA	1	1
PI	1	1
AL	1	1
DT	1	1
FS	1	1
EXAM	1	1
REF	1	1
CLASS	1	1

particles are fluidized in a fluidized bed which is divided into a heating zone and a reaction zone by a partition. Feed particles in the heating zone are fluidized by a carrier gas and are heated by microwave energy. On the other hand, the reaction zone for the deposition reaction is fluidized by a carrier gas, is heated by particle mixing in the heating zone and the upper section of the heating zone. The reaction temperature at the reaction zone is maintained at a level which does not deteriorate the microwave heating of the heating zone.

CAS INDEXING INFORMATION FOR THIS PATENT.

AB 5485784  
TI Fluidized bed reactor heated by microwave  
IN 5485784  
Sung, Hyeon, Republic of Korea, Republic of  
Jeon, Hyeon, Republic of Korea, Republic of  
Kwon, Hyeon, Republic of Korea, Republic of  
Lee, Hyeon, Republic of Korea, Republic of  
Lee, Hyeon, Republic of Korea, Republic of  
Park, Hyeon, Republic of Korea, Republic of  
PA Korea Patent Office, Chemical Technology, Daejeon, Korea,  
Republic of Korea, Republic of Korea  
PI US 53814  
AI US 1991  
RLI Continued in part of No. US 1992 967100, filed on 27 Oct 1992,  
now abandoned  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Amelia L.  
LREP Jordan A.  
CLMK Number: 1  
ECL Exemplary  
DFWN 4 Drawings  
LN.CNT 1997  
CAS INDEXING INFORMATION FOR THIS PATENT.

LA ANSWER 4  
AB An improved method is provided for the deposition of high-purity silicon on silicon. Silicon source gases in a fluidized bed reactor are fluidized into a heating zone and a reaction zone by a partition. Feed particles in the heating zone are fluidized by a carrier gas and are heated by microwave energy. On the other hand, the reaction zone for the deposition of silicon, through which the carrier gas flows, is heated by particle mixing in the heating zone and the upper section of the heating zone. The reaction temperature at the reaction zone is maintained at a level which does not deteriorate the microwave heating of the heating zone.

CAS INDEXING INFORMATION FOR THIS PATENT.

AB 5485784  
TI Heating zone heated by microwave  
IN 5485784  
Sung, Hyeon, Republic of Korea, Republic of  
Jeon, Hyeon, Republic of Korea, Republic of  
Kwon, Hyeon, Republic of Korea, Republic of

AB      Embodiment of the present plasma dynamic processors are disclosed which utilize a cathode, anode, shielded cathode-buffer, anode-ionizer and vacuum insulator/isolator structures to transform a working fluid into a beam of ions and/or plasma. The beam is controlled both in its size and direction by a series of magnets which are mounted in surrounding relation to the cathode, anode, vacuum insulator/isolators and plasma beam path. In addition, the processor may be utilized in many diverse applications including the separation of ions of differing weights and/or sizes, ion beam focusing and the deposition of any ionizable pure material. Numerous other applications of the processor are disclosed.

FLI continued Ser. No. US 1980-3-7077, filed on 29 Jul 1989, now abandoned in favor of continuation-in-part of Ser. No. US 1980-2-6241, filed 11 Aug 1989, and abandoned.

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PC      Refers to
PS      Generation
EXNAM   Primary Name of the Example, Theory,
LREP    Well, etc.
CLMN    Number of Columns
ECL     Example Code
DEWN    Subname of the Example
LN.CNT  Line Count

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AB     An input device is used to enter data into the computer, and the data is then used to calculate the flow in temperature in the apparatus, the flow in the apparatus, and an apparatus outer wall temperature are determined. In addition, the interior of the apparatus being under test is continuously and heated by a heater, an analysis method is used to calculate the apparatus and other values, and a heater is used to heat the apparatus, and a simulation is carried out to determine the flow in the apparatus, and the flow in the apparatus is determined.

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CAS INDEXING  
 AB Title  
 TI Process for forming a high purity polycrystalline silicon  
 IN Frederick J. ... Irvine, CA, United States  
 PA United States ... U.S. Corporation  
 PI US 4,000,000  
 AI US 1,978,000  
 DT United States  
 FS Grant  
 EXNAM Primary Examiner: ... Assistant Examiner: Griffin,  
 LREP Reimann, ...  
 CLMN Number  
 ECL Exemplary  
 DRAWN 20 Drawings  
 LN.CNT 995  
 CAS INDEXING

AB Embodiments of ion-plasma dynamic processors are disclosed which utilize a vacuum insulator/buffer, anode/cathode and a beam of ions to transform a working fluid into a beam of ions. The beam is controlled both in its size and direction by a series of magnets which are mounted in surrounding relation to the beam, in the vacuum insulator/isolators and plasma beam processor. The processor may be utilized in many diverse applications including the separation of ions of differing weights and/or ionization potentials and the deposition of any ionizable pure material. Applications of the processor are disclosed.

AB Title  
 TI Magnetron  
 IN Gunn, ... Irvine, CA, United States 3,7714  
 PI US 4,000,000  
 AI US 1,978,000  
 RLI Continued from US 1,978,000, filed on 25 Nov 1980,  
 DT United States  
 FS Grant  
 EXNAM Primary Examiner: ...  
 LREP Reimann, ...  
 CLMN Number  
 ECL Exemplary  
 DRAWN 20 Drawings  
 LN.CNT 995

AB Title  
 TI The process of forming a high purity polycrystalline silicon  
 IN Frederick J. ... Irvine, CA, United States 3,7714  
 PI US 4,000,000  
 AI US 1,978,000  
 RLI Continued from US 1,978,000, filed on 25 Nov 1980,  
 DT United States  
 FS Grant  
 EXNAM Primary Examiner: ...  
 LREP Reimann, ...  
 CLMN Number  
 ECL Exemplary  
 DRAWN 20 Drawings  
 LN.CNT 995

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FI 1000  
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 EXNAM 1000  
 LREP 1000  
 CLMN 1000  
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 LN.CNT 1000  
 CAS INDEXING 1000

LG AN.PKAB  
 AB In the process of manufacturing at an elevated temperature, a stream of gas containing a mixture of an oxygen-containing first gas and a second gas is introduced into the processing chamber. The first gas is one which is known to be stable under the conditions in the chamber to form a protective layer on the surface of the second gas. The second gas is one which is not harmful to the conditions in the chamber. Substantially equilibrium conditions are established in the chamber so that the dissociation of the first gas into oxygen occurs reversibly. The partial pressure of the oxygen, which is sensed in the chamber during processing, is maintained in response to the P.sub.O.sbsb.2 level, the ratio of the flow rate of the oxygen-containing gas and the second gas is adjusted to maintain the P.sub.O.sbsb.2 at a level less than about 10% of the pressure, and usually no greater than about 10% of the pressure, which will yield the density of oxygen-related defects in the product to a level of acceptably low. Oxygen related defects in the product are thereby reduced. If graphite structures are present in the chamber, they are preferably coated with a protective layer which will stand the high temperature and will not react with the gas coming into contact with the hot graphite structures. The reaction in the chamber are thereby also reduced.

CAS INDEXING 1000  
 AN 1000  
 TI 1000  
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 ECL 1000  
 DEWN 1000

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DE MAY

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13	400	100	1	100000
14	400	100	1	100000
15	400	100	1	100000
16	400	100	1	100000

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